SPMM Smart Revise

Descriptive Psychopathology

Paper A **Syllabic content 5.22**

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1. Mood and Affect:

The terms affective disorder and mood disorder are used interchangeably in clinical practice. The difference between mood and affect has been variously described. It is generally accepted that mood refers to a more pervasive emotional state than affect (as if climate = mood and weather = affect). Both mood and affect can have an objective and subjective components though one school of thought proposes to use the term mood for subjective and affect for objective components of emotional expression.

Aspects of Affect:

Descriptor	
Valence	The quality of affect: i.e. happy, depressed, perplexed, anxious or angry
Reactivity	Responsiveness of affect to environmental cues - One expects affect to be reactive to cues in the environment; we laugh on hearing a joke, blush when embarrassed, etc. If the reactivity is conspicuously absent, then this is called **blunted affect** or **parathymia**, according to Bleuler. Bleuler proposed this feature as a primary schizophrenic symptom.
Range of expression	This may be **restricted or constricted** in depression and anxiety states.
Congruence	**Incongruent affect** may be seen in hebephrenic schizophrenia and learning disability. For example, a patient might maintain a silly, jocular affect in spite of receiving a bad news.
Stability	This refers to the reasonable maintenance of an affective state until a clear external stimulus demands a change in affect. The absence of such stability manifests as a sudden unprovoked change in affect; the patient may break down into tears for no reason or appear enlightened with apparently no environmental cues. This is called **labile affect**; it is seen in histrionic personality, borderline personality, and sometimes in PTSD.
Control	An extreme form of labile affect is termed as **emotional incontinence**; it is seen in organic states such as pseudo bulbar palsy where frontal lobe is damaged. Here the patient bursts out into laughter or tears within minutes with no control over these emotions – it appears as if the patient has developed an incontinence of the emotion filled 'bladder'. He/she has little control over these expressions.

Coexisting features of mood disturbance:

Mania is characterized by extreme euphoria (disturbed emotion), pressured speech (disturbed thought) and too many ideas and plans to be carried out (disturbed will). It is not a pure mood or affective disorder in this sense. The terms euphoria, ecstasy and expansiveness, refer to various degrees of an elevated mood, but they do not include thought or will component. The same applies to the term 'depression' in clinical sense – it includes mood, will and thought components and not just sad affect.

Melancholia is probably the oldest of terms used in psychopathology. It is defined as a quality of mood, which is distinct from grief, occurring in association with significant psychomotor retardation often with somatic symptoms of depression (as described in ICD-10). It is very characteristic of depression; patients often describe this as a deeply distressing affective state.

Mixed states: It is long appreciated that between the extremes of mania and depression various mixed states exist. In fact, mixed states are commoner than pure mania or depression, according to the recent literature.

s. no	Type	Mood	Will	Thought
1	**Manic stupor**	High	Low	Low
2	**Mania with poverty of thought**	High	High	Low
3	**Inhibited mania**	High	Low	High
4	**Depressive mania**	Low	High	High
5	**Excited depression**	Low	High	Low
6	**Depression with flight of ideas**	Low	Low	High

Over the years, the six Kraepelinian mixed states have dwindled into just two varieties: 1. **Dysphoric Mania** (when predominant mania is present with some depressive symptoms) and 2. **Depressive Mixed State** (when full depression is present with some manic symptoms).

Other terms such as agitated depression (full depression with psychomotor agitation), anxious depression (depression with marked anxiety), irritable depression (depression with marked irritability), and mixed hypomania (hypomania with some depressive symptoms) are used in this context but are better avoided.

Pain symptoms:

Pain is frequently associated with mood disturbances. It is difficult to distinguish organic and non-organic pain as often there are mixed elements of both in a pain syndrome. Nevertheless certain differences exist as listed below.

Psychiatric vs. Organic pain:

Organic pain	Non-organic pain
Less diffuse	More diffuse
More anatomical confinement	Less anatomical
Often fluctuant and remits during intervals	Often constant and unremitting
Usually characteristic quality	Difficult to describe the quality
Progression, if occurs, will have tissue boundaries	Progresses without tissue confinement generally
Anywhere in the body	Head and neck, back are the most common
Can wake patients from sleep	Rarely wakes one from sleep
Tenderness may be present	Tenderness very rare
May have typical postural changes e.g. intracranial pathology	Usually no postural variation

For somatoform pain, head and neck are the most common sites. In somatisation disorder, musculoskeletal symptoms are the commonest. In hypochondriasis gastrointestinal symptoms predominate.

Anhedonia & Alexithymia:

Anhedonia was a term coined by Ribot; it refers to the inability to derive pleasure in life often leading to diminished interests in activities. It may be of two types: physical and social anhedonia. Physical anhedonia represents a defect in the ability to experience physical pleasures, such as pleasures of eating, touching etc., while social anhedonia represents a defect in the ability to experience interpersonal pleasure, such as pleasure of being with people, talking, etc. Anhedonia is common in melancholic depression with somatic syndrome where it is a core symptom. It is also observed as a part of the negative syndrome of schizophrenia. In schizophrenia, anhedonia is considered to be more social or interpersonal than a personal/physical deficit.

Alexithymia was first described by Sifneos. **A**- Absence or defective + **LEXI** –words + **THYMIA -** emotion i.e. Difficulties in using words to express emotions. It is often accompanied by

1. Diminution of fantasy.
2. Reduced symbolic thinking
3. Literal thinking concerned with details
4. Difficulties in recognizing one's own feelings
5. Difficulties in differentiating body sensations and emotional states.
6. A 'robot-like existence' is suggested – but patients rarely complain in these terms.

It is especially seen in psychosomatic illnesses, somatoform disorders, depression, PTSD, personality disorders and paraphilias. Note that in some cultures especially south Asian, somatic metaphors are used in describing emotions often.

Mood and perception of time:

This may be altered in patients with depression or mania. In a study of 32 acutely depressed, 30 acutely manic, and 31 control subjects, the experience of time was assessed both subjectively (with a visual analog scale) and objectively (with Chronotest software and the Trail Making Test (TMT)). Both manic and depressed subjects were slow in the TMT, but the subjective experience of time was slowed in the depressed, sped up in the manic, and unchanged in the control subjects (Bschor et al. 2004).

An allied phenomenon seen in some patients with schizophrenia is the **age disorientation.** In chronic schizophrenia patients may lose the track of their age and may claim that they are of an age at least 5 years different from their actual age. Age disorientation is defined as misstating one's age by 5 or more years. It is observed in a substantial number of chronically ill, institutionalized schizophrenic patients. Prevalence estimates have been limited to data from surveys of hospitalized mental patients in chronic care facilities, where approximately 25% of patients are age disoriented. The majority of age-disoriented schizophrenic patients understate their age. In fact, an additional 10% of schizophrenic subjects report an incorrect subjective age that is within 5 years of their age at illness onset. Age-disoriented patients are generally older, have a longer current admission, and were younger at first admission than age-oriented patients. Age disorientation is associated with early onset and poor prognosis.

2. Disorders of perception

Perception consists of two parts – receiving information from a sensory modality (bottom up) and interpretation or processing of the sensation instantaneously using cognitive faculties (top down). Normally, any perceived object *corresponds* to the stimulus that elicited it.

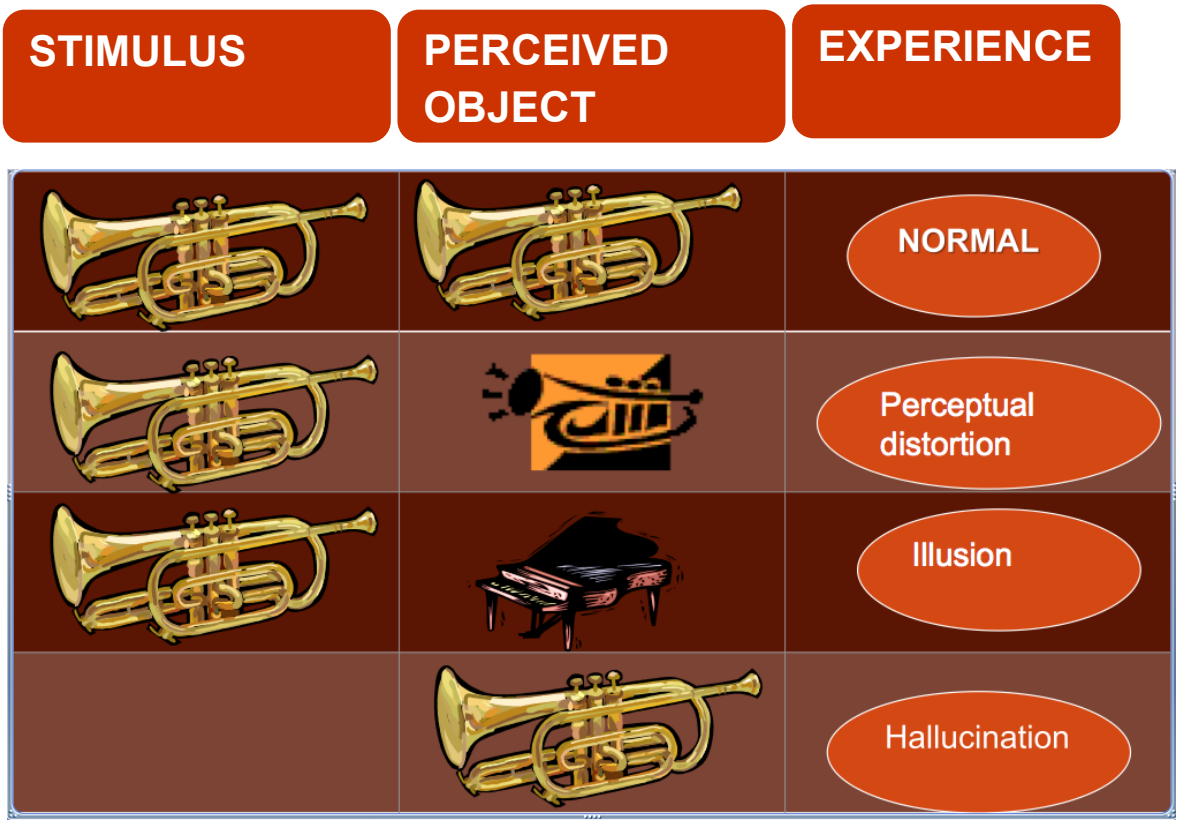
Perception occurs in visual, auditory, tactile, gustatory, olfactory, kinaesthetic or proprioceptive modalities – any distortions in perception could also occur in any of these domains.

Perceptual errors can occur at different levels –

Perceptual disorder	Stimulus present?	Corresponding object perceived?	Error
Perceptual distortions	Yes	Yes	Object's quality altered
Illusions	Yes	No	A different object is perceived
Hallucinations	No	Yes	Perception without a stimulus
Negative hallucinations	Yes	No	No object is perceived

- If a stimulus is perceived as corresponding object but **not accurately** – changes in physical properties e.g. size, shape, intensity and colour - this is a **perceptual distortion**. In depression and hypoactive delirium there is dulled perception; intense perceptions can occur in mania, hyperactive delirium and drug-induced states (hallucinogens). Hyperacusis especially is seen in migraine and alcohol hangover.
  - Changes in the shape of objects especially with the loss of symmetry are called **dysmegalopsia**.
  - The objects can shrink in size – **micropsia** or enlarge - **macropsia**.
  - These are usually organic – could be ictal (parietal) or ocular (accommodation errors – paralysed accommodation can cause micropsia), rarely in acute schizophrenia. Hallucinogens (Mescalin) can also change the colour of perceived objects or make components of an object e.g. body parts – to be seen detached in space.
- Stimulus is perceived as an object but not corresponding to the source – **both stimulus and object are present**, but different from each other – **illusions**.
- There is **no stimulus** but perception occurs – **hallucinations**.
- There is a stimulus but no perception occurs – **negative hallucinations.**

The above table has been pictorially represented below:



Imagery & Illusions

The imagery is not a perception because there is no stimulus involved and no object perceived; it is essentially a fantasy. Imagery refers to images produced voluntarily with complete insight that they are mental, not external phenomena. They also lack the objective quality of hallucinations and normal sense perceptions.

One form of imagery called **eidetic imagery** is considered to be a special ability of memory wherein visual images are drawn from memory accurately at will and described as if being perceived currently. This is noted in children (2-15% school goers) and may be a part of religious experiences; no pathological association is noted consistently.

Illusions may be difficult to differentiate from hallucinations if the source of stimulus is difficult to trace – e.g. 'Did I see the devil *on* the wall or *from* the wallpaper pattern?' But, fortunately, these are qualitatively different and so eliciting the description patiently can help. There are three major types of illusions:

Type of illusion	Context	Quality	Effect of concentration	Example
Affect illusion	Prevailing emotional state leads to misperceptions	Often fearful, emotion provoking.	Disappears on focussing the object with extra concentration	A depressed patient reading 'deed' as 'dead.'
Pareidolic illusion	Formed objects from ambiguous stimuli, coloured by prevailing emotion; not entirely due to inattention or affective change	Often playful and whimsical.	On paying extra effort, the object intensifies – does not disappear.	Seeing cars in the cloud
Completion illusion	Stimulus that does not form a complete object might be perceived to be complete	Due to inattention	Disappearance on concentration is the rule.	CCOK is read as COOK

In pareidolia, fantasy and imagery play equal parts, apart from the actual sense perception. It is common in delirium especially in children when febrile, hallucinogen use. Pareidolia are under some degree of voluntary control and not characteristic of any psychotic illness.

Pseudohallucinations:

Though the distinction between these two is not always clinically relevant, presentation with consistent pseudo hallucinations with no other psychotic features should make one question the veracity of the psychopathology.

Pseudohallucinations: There are two different definitions:

- Involuntary hallucination-like experiences occurring in inner subjective space, with a vivid outline that are absolutely different from normal sense perceptions and hallucinations (Kandinsky, Jaspers & Sims).
- Hallucinations that are recognized to be unreal and self-originating are pseudohallucinations according to Hare. European psychopathologists use the former definition more often.

Pseudohallucinations are not pathognomonic of anything; they are not *always* pathological.

They are intermediate between fantasy (imagery) and hallucinations. Like fantasy they are in subjective space, lack quality of concrete reality, have quality of idea and so not sought in other modalities simultaneously (not searched for, no attempts to reach out etc.) and appreciated to be observer-dependent, self-originating. Like a hallucination, they have a clear outline, vivid, retained for the good length of time, cannot be dismissed at will and are behaviourally and emotionally relevant i.e. acted upon or felt for.

The hallucinatory experiences of bereavement and in Ganser's state are pseudohallucinations

TRUE HALLUCINATION	PSEUDO HALLUCINATION
Objective, outside spatial location Absence of insight Sought in other modalities (see text) Often seen in psychosis	Subjective spatial location The presence of insight, often. Not sought in other modalities usually. Often in personality disorders, following trauma, dissociative experiences.

Hallucinations

Hallucinations have several important qualities that are essential in differentiating from other mental phenomena:

1. They take place *at the same time* as other sensory perceptions – e.g. the voice is heard even when music is playing, or someone is talking to me. So they are different from dreams where no real component exists alongside the false perception.
2. They take place *in the same space* as other perceptions - angel is seen standing at the corner of my room. This is different from fantasy or imagery which takes place in subjective space.
3. They are experienced *as sensations* – not as thoughts – contrast from obsessional images.
4. The percept has all *qualities of an object* – i.e. it is believed that it can be experienced in other modalities too, like a real object which can be seen, felt, smelt and heard. This is why hallucinators search for the man behind the voice or try and reach out and touch visual percepts.
5. They are *involuntary* – appearance cannot be controlled; *independent* – will exist even when not perceived by the hallucinators; may *lack the* quality of *publicness* – not every one could hear and see them.

Auditory Hallucinations:

- **Elementary**, unstructured hallucinations are seen in acute organic states.
- **Musical hallucinations** are similar to Charles Bonnet syndrome in visual domain – can occur in those with deafness, also in organic conditions. Formed auditions like voices – as in thought echo – cannot be elementary.

Phonemes are any auditory hallucinations that occur as human voices. Schizophrenic phonemes are usually multiple, may or may not be recognizable, usually male with a different accent, speaking in one's mother tongue and usually episodic - almost never continuous. When a same word is repeated continuously, normal subjects hear phonetically linked but different words. Hallucinating schizophrenia

subjects hear different words that have no phonetic connection to the original repeated word – this is called *verbal transformation effect*. Patients could be distracted away from their voices, but it is the attention paid to the external stimulus which is more important than the degree of external stimulus used to distract. Alcoholic hallucinosis initially starts as fragmented voices, later organised into clear voices.

Visual hallucinations: Occipital lobe tumours, postconcussional states, epileptic twilight state, hepatic failure (any toxic delirium), dementia are some causes for visual hallucinations. 30% of old age psychiatric referrals have visual hallucinations. Solvent sniffing and hallucinogens can cause elementary visual hallucinations like light flashes. Simultaneous visual-verbal hallucinations – green man speaking to me – is seen in TLE. Visual hallucinations are very uncommon in schizophrenia (But Andreasen quotes 30% in a series observed with acute schizophrenia). Reports of "black patch" psychosis were frequent following simultaneous bilateral cataract surgery in the early era of the procedure, attributed to sensory deprivation, leading to the recommendation that only one eye be operated on at a time. It was subsequently recognized that "black patch" psychosis was a relatively uncommon postoperative delirium partly due to anticholinergic eye drops.*

Charles Bonnet Syndrome: Elderly patients, with normal consciousness and no brain pathology, with reduced visual acuity due to ocular problems, experience vivid, distinct, usually *well-coloured* (in contrast to real sensation that is blurred due to eye disease) *formed* hallucinations – mostly humans, at times animals and *cartoons*. These objects usually show *movement*, and can be *voluntarily* controlled – disappear on closing the eyes; *insight* about unreality is usually preserved – though they may evoke emotions including fear and joy. About 1/3rd are elementary; usually the hallucinations are located in external space.

Podoll's criteria for diagnosis include: Elderly person with normal consciousness with visual hallucinations; not in the presence of delirium, dementia, psychosis, intoxication or neurological disorder with lesions of central visual cortex; reduced vision resulting from eye disease (most commonly macular degeneration). The syndrome can occur in people with normal vision[1,2]

Lilliputian hallucinations can occur in visual or haptic mode – they usually involve seeing tiny people or animals (or feeling diminutive insects crawling if haptic) and are seen in delirium tremens and unlike other organic visual hallucinations, Lilliputian hallucinations can be accompanied by pleasure though often intermingled with terror. These are not the same as micropsia. Patients with DT often have a prodromal affect or pareidolic illusions before these hallucinations.

Autoscopic hallucinations are the visual experience of seeing oneself. Males predominate *2:1*, impaired consciousness is a common accompaniment and *depression* is the commonest psychiatric cause. They are also called *phantom mirror images* and may take the form of pseudohallucinations. Schizophrenia (usually pseudo), TLE, parietal lesions (organic states more likely to have true hallucinations) are also implicated. *In negative autoscopy*, one looks into a mirror and sees no image at all.

Palinopsia: *palin* for "again" and *opsia* for "seeing". It is a visual disturbance that causes images to persist even after their corresponding stimulus has left. It is seen in LSD use, migraine, occipital epilepsy, head trauma. It is similar to afterimage, but colour inversion (usually shadows or distorted colours noted in afterimages) is conspicuously absent.

Somatic hallucinations: These can be divided into *superficial*, *visceral* and *kinaesthetic*. The superficial somatic hallucinations are *tactile* (haptic - touch), *hygric* (fluid – wetness etc.) and *thermic* (heat or cold). Visceral hallucinations are usually pain-like sensations arising from deep viscera like liver. These are sometimes termed as **coenesthetic hallucinations** and suggest schizophrenia. Kinaesthetic or proprioceptive hallucinations refer to joint or muscle sense, often linked to bizarre somatic delusions. They are also seen in *benzodiazepine withdrawal* and alcohol intoxication. **Formication** (formic acid – from ant) is a special type of haptic hallucination – unpleasant sensation of little animals or insects crawling under the skin, seen in DT and cocaine intoxication. Tactile hallucinations can be seen in parietal seizures. Superficial somatic hallucinations are almost never noted in TLE though the visceral sense of 'raising epigastrium' is seen. The common experience of the *phantom limb* is a body image disturbance and not a hallucination; though it is in external space, it does not satisfy other qualities of hallucination and patients are aware of unreality usually. It is a body image disturbance with a neurological basis. Somatic hallucinations may or may not be accompanied by passivity delusions. Without the passivity delusions, they cannot be classed as a First rank symptom.

Olfactory hallucinations can occur in the aura of TLE – usually burning smell or urine smell. In depression, this can be an adjunct to nihilism.

Gustatory hallucinations e.g., bitter taste of poison can give rise to delusions of persecution in schizophrenia. They are also seen in TLE.

Extracampine hallucinations: Hallucinations that occur outside the normal field of perception e.g., images seen behind your back, under your sternum or hearing voices from Inverness, etc. They occur in schizophrenia, epilepsy and also in hypnagogic hallucinations of healthy people – so not diagnostically important.

Both illusions and hallucinations are not necessarily pathological though they both are false perceptions, along with pseudohallucinations. For example **hypnagogic** hallucinations (hallucinations when going to sleep – go for gogic - usually auditory. Also seen in Narcolepsy-cataplexy. They can be visual or tactile too. First noted by Aristotle) and **hypnopompic** hallucinations (hallucinations when waking up) can occur in normal individuals. Hallucinations also occur in glue sniffing, post-infective depression, children with fevers and in phobic anxiety. Sensory deprivation in normal healthy people can also produce hallucinations. They are not more frequent in schizophrenia than other conditions.

HYPNAGOGIC HALLUCINATIONS

3 times more common than hypnopompic
37% normal adults experience at least once
Hypnopompic is more specific for narcolepsy
EEG shows alpha rhythm (subject not awake)
Hearing one's name called is the most common

Functional hallucinations: An external stimulus provokes hallucination, and both hallucination and stimulus are in same modality but individually perceived. e.g. voices heard whenever the noise of water running through the tap is heard. They are not illusions – as the stimulus is perceived appropriately (noise of water), but, in addition, there is another perception (voices) without any appropriate object.

Reflex hallucinations: These are hallucinations in one modality provoked reflexively by a stimulus in another modality e.g. seeing an angel whenever listening to music. They are similar to functional hallucinations in that there is a stimulus, which is perceived normally, followed by a hallucinatory perception – only difference being the modality of stimulus and perception being same in functional while different in reflex hallucinations.It is important to differentiate synesthesia from reflex hallucinations in EMIs. In synesthesia it is the music that is seen – the *stimulus and object of perception remain the same* albeit in different modalities - the patient does not claim that she could see Jesus or angel. Also the perceptions are *simple, unformed* and non-bizarre in synesthesia e.g colours; in reflex hallucination these are formed voices, vivid images like angels etc. The stimulus –perception sequence is usually completed before hallucination occurs in reflex hallucination – 'I heard the music and *then* came the angel'; in synesthesia music itself is seen as colour – the experiences are simultaneous.

Synaesthesia:

It was Francis Galton (1880) who first reported the condition called synaesthesia. He noticed that a certain number of people in the general population, who are otherwise completely normal, seemed to have a certain peculiarity: they experience sensations in multiple modalities in response to stimulation of one modality. The phenomenon of perceiving a stimulus of one modality in a different modality (may be single or multiple modalities) is called synesthesia. E.g. tasting the music, hearing colours and smelling voices. It is not a hallucination as the perceived object has an appropriate stimulus. The original stimulus is usually perceived in appropriate modality too when the cross modality perception occurs (*syn* – joint, simultaneous). It is common in females 4:1 to 6:1, runs in families and colour-number synesthesia is the most common form. It is thought to be due to extensive cross wiring between multimodal association regions in some people, probably due to failed selective pruning. Several pieces of evidence support the notion that indeed synesthetic experience has a neural basis:

1. There is a remarkable consistency of associations (e.g., sound–color associations) over time. For example, Baron-Cohen et al. found a consistency of 92% of color–sound associations after 1 year in 13 synesthetic subjects but only a 37% consistency (after 1 week) in a control group.
2. There is evidence that synesthesia can be acquired in the course of neurological illnesses such as multiple sclerosis, temporal arteritis, tumors to the sella region, and others.
3. Synesthetic experiences can be induced by ingestion of drugs such as mescaline.
4. There appear to be differences between nonsynesthetes and synesthetes in measures of cerebral blood flow.

Synesthesia	**Reflex hallucination**
1. 'Music is seen as colours'	1. 'On hearing running tap water, an angel is seen'
2. Often there is only one perception ('music gets seen'). Sometimes, both stimulus and object are perceived (music is also perceived; colours are also seen)	2. Both stimulus and objects are perceived separately
3. Object perceived corresponds to stimulus though in different modality	3. perceptions are in different modality but object does not correspond to image – e.g. tap water is not correspondent with angel.
4. At same time (syn – simultaneous)	4. One after another - not simultaneous
5. Percepts are often simple and unformed e.g. colours	5. Percepts are often fully formed, complex or bizzare e.g. angel's face.

3. Delusions

DSM-IV defines a delusion as "A false belief … that is firmly sustained despite what almost everyone else believes and despite what constitutes incontrovertible and obvious proof or evidence to the contrary". This definition, though very useful, conceals the multidimensionality of delusional experience, which is now well endorsed by cognitive psychologists, phenomenologists, philosophers as well as clinicians.

Do delusions exist in a continuum?

Some authors suggest that 'delusions and hallucinations are commonplace in healthy populations, with prevalence up to approximately 25% depending on the definitional criteria, and so psychosis exists in a continuum model'. This claim is yet to be validated and established. (Lincoln, 2007).

Using data based solely on self-report measures, Lincoln (2007) found that high distress associated with beliefs seems to be a relevant characteristic of delusions in persons with schizophrenia, compared to 'delusion-like beliefs in common population'. The presence of hallucinatory experiences accompanying delusions did not differ between schizophrenia and 'common' population.

Are delusions really persistent?

Though classically defined as persistent belief, doubts have been cast on this of late. In a follow-up of nearly 1100 acutely hospitalized psychiatric patients who were re-interviewed at 10-week intervals for 1 year, it was demonstrated that most delusions exhibited a high degree of plasticity; in nearly one-third delusions completely subsided on follow-up (Applebaum et al. 2004).

Delusional ideation is more likely to persist in never married, older patients, those with schizophrenia, and with delusions of thought broadcasting, those with higher degree of preoccupation and higher behavioural relevance, and those with more than one primary delusion. Even when delusional experience persists in certain patients, this does not mean that the same delusion will be maintained; considerable change in content was noted during the follow-up.

What are the dimensions of delusions?

Kendler (AJP, 1983) has listed the dimensions of delusional experiences.

The dimensions of delusions include

1. **Conviction:** The extent to which the patient believes.
2. **Extension**: The extent to which the belief extends to various spheres of life.
3. **Disorganisation** (or organisation): the degree of internal consistency and systematisation of the belief.
4. **Bizarreness**: The implausible quality of the belief (especially in schizophrenia). 4%–8% of patients receive a diagnosis of schizophrenia because of the presence of Bizarre Delusions. Bizarreness is defined using the following notions: physical (or logical) impossibility and overall implausibility or

incomprehensibility with the lack of grounding in ordinary experience. Most bizarre delusions are Schneiderian (i.e. of FRS type).

5. **Pressure**: The extent to which the patient is preoccupied and distressed.
6. **Acting on delusion**: The extent to which the belief drives behaviour
7. **Seeking evidence**: The extent to which the patient questions the veracity of belief or seeks to strengthen the belief. Often patients with delusions, do not need any external proof or evidence, and despite showing evidence to contrary, will continue to hold their delusional beliefs.
8. **Lack of insight**.

Primary delusions:

These are defined in two different ways

1. Jaspers' concept: primary delusions are the true, un-understandable beliefs that arrive fully formed and cannot be reduced further to any other mental experiences. This has been challenged recently.

2. Primary delusions are the first psychopathology to occur in the course of symptoms (temporal sequence).

Often both are true i.e. they are irreducible and precede other mental phenomena.

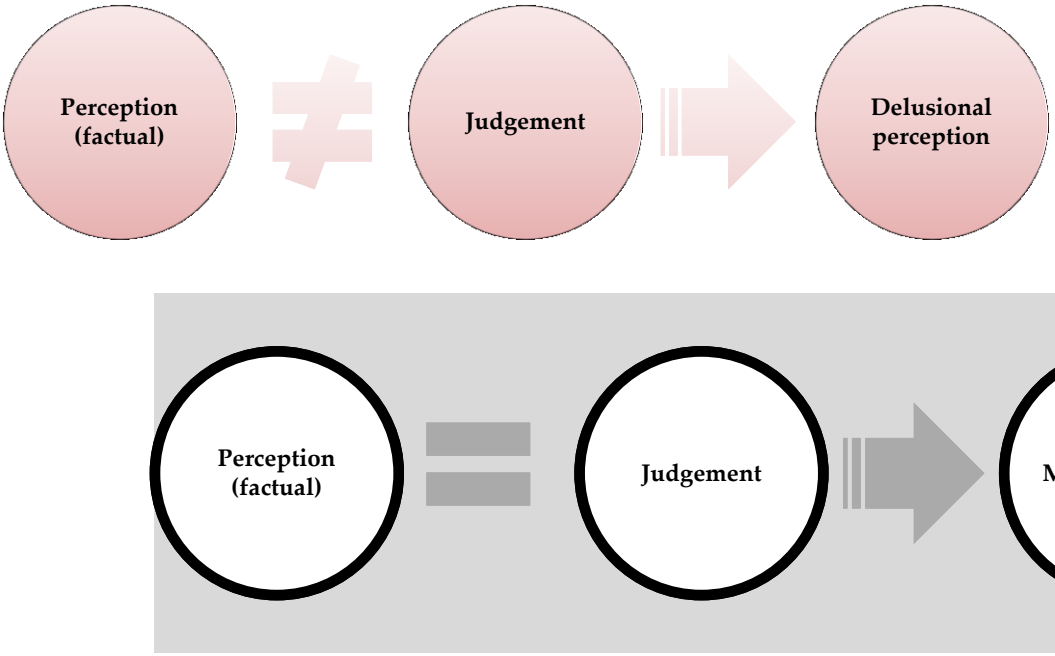
There are 4 types:

1. **Autochthonous delusions** or delusional **intuitions** or simply, primary/true delusions: These are ideas that occur de novo, or 'out of the blue' - takes form in an instant, without identifiable

preceding events, as if full awareness suddenly burst forth in an unexpected flash of insight, like a bolt from the blue. This can be a quite elaborate delusional system on arrival itself. **Wernicke** formulated the concept of autochthonous delusions. Autochthonous stands for 'out of soil', 'aboriginal'.

2. In **delusional perception**, a normally perceived object is given a new meaning, usually in the sense of self-reference - the conclusion being entirely unwarranted, the perception is normal. Hence, it is a two-staged process – *normal perception* preceding the attachment of *delusional significance*; these two steps need not be simultaneous - might even be separated for years! The only type of delusion included in Schneider's first-rank symptoms is delusional perception.
3. **Delusional mood or atmosphere** refers to the sense of perplexity and uncertainty that exists during a prodrome of psychosis, usually ending in an autochthonous delusion which will make sense of the perplexity on arrival. Delusional mood/atmosphere can precede other primary delusions. It is the only psychiatric phenomenon that can directly precede and causally related to primary autochthonous delusion. Note that delusional mood is a specific affective experience – not thought content.
4. **Delusional memory** can be of two types. It can be a retrospective delusion where something that never happened and so false, irrational or bizarre is reported as if occurred in the past and recollected now. E.g.,. A male schizophrenia patient said I had a hysterectomy at age 3 and *since then* I *became* a man. Sometimes a normal memory might be delusionally elaborated – "My dad bought me a camera when I was seven, *now* I understand it is because he was homosexual". It is difficult sometimes to say what is fact and what is not though the distinction between above two variants is more an academic exercise. More importantly delusional perception can mimic delusional memory when the first stage of normal perception is actually a 'recollected' normal perception from memory. But in spite of this delusional perception is a two stage process – e.g. "I saw an envelope yesterday (normal perception but recollected from memory), I realised my stomach is upturned".

Primary delusions do not carry any *prognostic significance* in schizophrenia though they have diagnostic relevance. While primary delusions can occur in *epileptic psychoses*, they are not generally associated with epilepsy when they occur in psychotic disorders. Primary delusional experiences occur more in *acute stages of schizophrenia* and are not seen in chronic schizophrenia, due to being mixed with secondary delusions, hallucinations, FTD, etc. Other delusions that follow a primary delusion or other mental phenomena like hallucinations, affective disturbances, etc. are termed as secondary delusions.



In delusional perception, the delusional judgment or belief that follows a perception will be unrelated to the prior perception

Persecutory delusions: Primary delusions vary considerably in content and are not characteristically persecutory in nature. In contrast, most secondary delusions are often persecutory, making persecutory themes the commonest contents of delusions as a whole.

Paranoid delusions: The term paranoid is very much misused in psychiatric practice. Paranoia stands for 'besides mind'. In the strict sense, the term paranoid can be used only for self-referential delusions, irrespective of their content. For example, grandiose delusion 'God is sending a messiah to help me', persecutory delusion 'mafia is after me', referential delusion 'those kids are talking about me, cameras are fixed to watch me', hypochondriacal delusion or nihilistic delusion 'my body is rotting away' etc are all paranoid delusions.

Monothematic delusions: These can occur as single delusions in various disorders though in their commonest form they occur in major psychotic illnesses like schizophrenia or affective psychosis.

Delusion	**Example Content of monothematic delusions**
Capgras delusion	"That's not my wife; it is an impostor who looks just like her."
Cotard delusion	"I am dead."
Fregoli delusion	"I am constantly being followed by people I know, but I can't recognize them because they are always in disguise."
Mirrored-self misidentification	"The person I see when I look in the mirror isn't me; it is some stranger who looks like me."

De Clerambault's delusion (erotomania)	"Person X is secretly in love with me" (Person X being some important or famous person who has never encouraged this idea)
Othello syndrome (pathological jealousy)	"My wife is having an affair."

From **Coltheart, M, et al. Schizophrenia and Monothematic Delusions. Schizophrenia Bulletin 2007 33(3):642-647**

Morbid jealousy can occur in various forms – delusion, overvalued idea, in depression and in anxiety states; it is not a misidentification syndrome. It was first described by Ey. It is common in alcoholics. It has a potential of violence, especially against rival than a partner and can occur among cohabiters and homosexual couples too.

De Clerambault's syndrome is a type of delusion of love, in which a woman believes that an older man who is of higher social status is in love with her. It is not related to delusional misidentification. It is also called Old Maid's insanity where persecutory beliefs coexist.

Cotard's syndrome is severe depression with nihilistic and hypochondriacal delusions tinged with grandiosity and a negative attitude. It is not related to delusional misidentification. Cotards syndrome is seen in schizophrenia though more commonly in depressive psychosis. It is generally seen in the elderly, with hypochondriacal and nihilistic delusions with a tinge of grandiosity amidst nihilism (not grandiose delusions!).It is also reported in organic lesions and migraine.

Hypochondriacal delusions: These are seen typically in psychotic depression especially in elderly, as a part of Cotard's syndrome. A specific type described by Munro called **monosymptomatic hypochondriacal psychosis** consists of

1. Delusions of body odour and halitosis (olfactory delusions). Some of these may have ***olfactory reference syndrome*** – no olfactory experiences but only fixed belief about body order with anxiety reaction. Paranoid personality disorder is often associated with this syndrome.
2. Delusional infestation (***Ekbom's syndrome***) It is a delusion of parasitic – macroscopic - infestation with classical **matchbox sign**: An old lady comes to clinic with a match box, of skin scrapings usually, as evidence for the parasite that infests her causing itching. This can predate the onset of dementia. It may or may not be associated with a somatic hallucination.
3. ***Dysmorphic delusions*** (misshaped nose, etc.).

The various **misidentification syndromes** (Ellis, 2005) are

1. In **Capgras** syndrome, a person believes that a person usually close to him has been replaced by an exact double. Capgras syndrome is sometimes referred to as the illusion of doubles though it is a delusion. First reported by Kahlbaum (1866) but more extensively described by Capgras and colleagues (1923, 1924). The Capgras delusion is classified as a dangerous delusion and may be associated with violence. Capgras **delusion** is etiologically heterogeneous – at least 15 different causes are recorded. It is now thought to be mostly due to organic brain damage (>50%, Lishman) apart from being seen as a part of schizophrenia or isolated delusional disorder including brain

injury and schizophrenia. It is thought to be cognitively mediated by the combination of reduced affective responsivity to familiar faces plus impaired belief evaluation, and neuropsychologically it is believed to be due to the combination of the disconnection of the face recognition system of the brain from the autonomic nervous system plus damage to a specific region of right frontal lobe.

2. In **Fregoli** syndrome, there is the false identification of familiar persons in strangers. A familiar person is thought to be taking various disguises. First reported by Courbon and Fail (1927). They described a 27-year-old woman, a domestic servant with a passion for the theatre, who developed the delusion that the actresses Robin and Sarah Bernhardt were persecuting her in the guise of others. They suggested the term Frégoli delusion with reference to the celebrated Italian mimic Léopoldo Frégoli. The essential feature of this delusion is that there is no belief in actual physical change: instead the patient believes that his/her persecutors can invade the body of others. It is rare compared to Capgras.

3. In the **syndrome of subjective doubles**, the patient believes that another person has been physically transformed into his own self and the patient is convinced that exact doubles of him- or herself exist.

4. **Intermetamorphosis** - A becomes C, C becomes B etc. People keep transforming their physical and psychological identities. Courbon and Tusques (1932) described Sylvie G, a 49-year-old woman who claimed that objects and animals seemed altered. People could change gender as she looked at

Feature recognition (appearance)	**Affect recognition (warmth)**	**RESPONSE**	**SYNDROME**
		Looks like my dad, but he is not my dad, probably an impostor	Capgras syndrome
		My dad, but does not look like him… is he disguising himself?	Fregoli syndrome
		Who is he?	Prosopagnosia (Seen in neurological disorders)

them. Many people looked like her son or her aunt. She could distinguish them from her true son only by examining their feet (his were large and were invariably shod in dirty shoes). Her husband might change appearance into that of a neighbour (all except his eye colour and missing finger). There were no further reports of intermetamorphosis for 46 years since when five cases have been described, including three by Young et al. (1990).

5. **Paraprosopia**: This is very rare, re-described by Ellis. Here, a face appears to transform within seconds into a grotesque mask, often described by patients as a "monster", "vampire" or "werewolf" [Krauss, 1852]. Most likely to be reported by schizophrenic children but also observed in adults (e.g. Daniel Paul Schreber, 1842-1911, President of the Court of Appeal in Dresden, saw two men "as devils with particularly red faces…").

The concept of misidentification is now being extended to misidentification of time, a place apart from the person (reduplication phenomenon).

Other disturbances in thought content:

Ideas of reference are seen in paranoid PD where the individual is unduly self-conscious and feels that people take notice of him or observe things about him that he would rather not be seen. It can also precede the development of full-blown schizophrenia where it is called sensitive ideas of reference or "sensitiver Beziehungswahn"! It is not characteristic of mania.

Overvalued ideas: Overvalued ideas (Wernicke) are solitary abnormal beliefs that are *neither delusional nor obsessional* in nature, but which dominates a person's life and his actions. They have a poor prognosis and tend to dominate the sufferer's life. Common conditions presenting with overvalued ideas are paranoid or anankastic personality disorder, Body Dysmorphophobia, anorexia nervosa, morbid jealousy & transsexualism.

Folie a deux is a shared delusion, in which a psychotic person transfers his delusions to one or more people close to him. The non-psychotic victim usually exhibits dependent traits on the primary patient. Separation of the pair can result in remission.

Doppelganger: This is also known as double phenomenon – it is the awareness of oneself as being both outside and inside oneself. It is a cognitive and ideational disturbance as opposed to autoscopy, which is a perceptual disturbance. It can occur in the absence of mental illness too. It is not a delusional misidentification syndrome; unlike doppelganger, the latter is the pathology *of familiarity*.

How are delusions formed?

1. **Attentional biases**: People with persecutory delusions preferentially attend to threat-related stimuli and preferentially recall threatening episodes. (Blackwood, AJP 2001)
2. **Attributional biases**: An exaggeration of self-serving attribution bias is seen in psychosis. Patients excessively attribute hypothetical positive events to internal causes (stable and global – grandiose) and hypothetical negative events to external causes (stable and global- persecutory). The attribution bias in paranoid subjects shapes delusional content rather than form, as patients with non-persecutory delusions do not show this bias significantly. Paranoid patients specifically attribute negative self-referent events active malevolence on the part of the other *person* (external personal attribution) rather than circumstances or chance (external situational attribution). (Blackwood, AJP 2001). This might serve to preserve the self-esteem of paranoid patients, acting as a self-defence.

3. **Probabilistic reasoning bias:** When deluded patients were shown sequences of black and white beads and were asked to decide which jar [jar A had majority black beads and B had majority white] the sequence was probably drawn from, they came to a conclusion with far lesser beads in a sequence than controls. They were also relatively overconfident about the accuracy of their judgement. This was hypothesized to be due to impaired probabilistic reasoning (generating hypothesis and testing statistical probability). But later studies showed that when allowed to see as many numbers of beads as controls generally do, patients reached similar correct conclusions – they were able to generate hypothesis and test the probability; the defect being deficient data-gathering (less information before decision). This is called Jumping-to-conclusion style of reasoning. (JTC).
4. **Mentalising deficits/bias**: Persecutory delusions reflect false beliefs about the intentions and behavior of others that could arise from the theory of mind deficits.

4. First Rank Symptoms:

- Kurt Schneider, a German psychiatrist and a pupil of Karl Jaspers, pointed out certain symptoms as being characteristic of schizophrenia and therefore exhibiting a "first-rank" status in the hierarchy of potentially diagnostic symptoms.
- The "first-rank" symptoms (FRS) have played an extremely important role in the recent diagnostic systems: in the *International Statistical Classification of Diseases, tenth Revision* (*ICD-10*) as well as in *Diagnostic and Statistical Manual of Mental Disorder,* (*DSM-III-IV*), the presence of one FRS is *symptomatically* sufficient for the schizophrenia diagnosis but FRS are *not essential* to diagnose schizophrenia.
- FRS may also be encountered in the nonschizophrenic conditions, and, therefore, they are not specific or diagnostic for schizophrenia (Palaniyappan, 2007).
- *Kurt Schneider* proposed an empirical cluster of symptoms, one or more of which in the absence of evidence of organic processes, could be used as a positive evidence for schizophrenia. He did not claim that they are comprehensive – but they are clearly identifiable, frequently occurring and occur more often in schizophrenia than any other disorder.
- FRS emphasizes on the *form of the experience rather than content* i.e. the feature that voices echo one's thoughts is more important that what the voices actually said.
- Disturbance of self-image (ego-boundary) is the predominant underlying feature of all FRS.
- In a critical review of FRS studies published in English between 1970 and 2005, Nordgaard et al. (2008) report the following findings. The FRS are reported to occur in 22% to 29% of patients with affective disorders. Generally, the prevalence of FRS in schizophrenia is reported to range between 25% and 88%. This range remains equally high in the reports from western and developing countries and in studies of different ethnic groups.
- In some studies, delusional perception is the most frequent FRS, whereas the same symptom is the least frequent in other studies. A number of studies find no single dominating type of FRS.
- Assessment of the diagnostic weight of individual FRS is absent with the exception of Mellor and colleagues who suggest that "*voices discussing*" should be given less diagnostic weight than other FRS.
- The majority of the reports conclude that FRS do not affect the outcome. No study finds that the outcome is related to the *number of FRS* observed in the individual patient. FRS are not of any *prognostic* importance at all. They do not specify any subgroups with the differential treatment response or heritability.

The First Rank Symptoms
3 hallucinations
Audible thoughts (*Thought echo*) Voices heard *arguing* (*3rd person*) Voices heard commenting on one's actions (*running commentary*)
3 'Made' phenomena
Made affect (Someone controlling the mood/affect) *Made volition* (Someone controlling the action – usually a completed act) *Made impulse* (Someone controlling the desire to act –not completed act but the drive. If the action has been carried out, patient admits to ownership of *act*, not the *impulse* behind it)
3 Thought phenomena
(Experiences themselves are more important than later explanations or how patient interprets them) *Thought withdrawal* *Thought insertion* (External agency inserting thoughts upon the patient) *Thought broadcast* (Also called thought diffusion – as if in television broadcast, everyone comes to know about the patient's thinking *as and when the patient thinks* – refers to the loss of privacy of thoughts. Cf. referential delusion – 'people act as if they know what I am thinking')
2 isolated symptoms
Delusional perception Experience of sensations on the body caused by external agency (*somatic passivity)*
***Totally* (*3X3)* +2.**

What is NOT FRS?

Command hallucinations are not first rank symptoms.

Somatic hallucinations are also NOT first rank symptoms unless there is a delusional elaboration and attribution of the origin of sensations to an external agency (i.e. unless they are presenting as somatic passivity). Note that somatic passivity can follow a normal sensation like a headache, ascribed to a 'Russian neurosurgeon who inserted a chip through my nose when I was sleeping'!

Schneider described mood changes (depression or elation), emotional blunting, perplexity and sudden delusional ideas as symptoms of the ***second rank.***

Thought alienation:

The three thought phenomena described above are sometimes grouped together as thought alienation or delusions of thought control. These are related to a primary disturbance in the subjective control of thinking. This is a high yield topic for MCQs – please study the table below.

Phenomenon	Self – non-self difference	Where is the thought now?	Who owns the thought?	Who influences the thought?
NORMAL THOUGHTS	Preserved (we know that our thoughts are private)	Self (in our subjective space)	Self (it is our own thought)	Self (we can stop thinking when we want)
Thought insertion	Violated	Self (with the patient)	External agency	External agency produced and influenced the thought
Thought withdrawal	Violated	Taken away (may be delusionally elaborated)	Self	Originally self-produced, now external agency influences
Thought broadcast	Violated	Diffused everywhere	Self	External agency influences it as soon as it originated from self
Thought blocking	Not violated	Unknown	Self	Self
Obsessions (this is not a thought alienation)	Not violated	Self	Self	Self but disturbed (the thoughts may be against one's values – so ego-dystonic but not fully disowned)

Thought alienation table is modified from **Mullins, S. & Spence, S.A. Re-examining thought insertion**. ***The British Journal of Psychiatry*** **(2003) 182: 293-298**

5. Psychopathology of speech

Aspects of conversational speech:

1. **Spontaneity**: Comments that are not just responses to questions is present in normal speech
2. **Turn-taking**: Responses and comments are made only when the other speaker completes his sentences, or when natural pauses occur during conversations.
3. **Mutual topic**: Content is focussed and related to the comments made by the other speaker
4. **Animation**: Accompanying non-verbal behaviours are almost always present in normal speech

Disorders of phonation/articulation:

Aphonia refers to the inability to vocalize. It refers to sound production (phonation) rather than sound manipulation (articulation) – disturbance of the latter being dysarthria. In aphonia, whispering occurs; it may be due to paralysed vocal cords or due to hysteria.

Dysarthria refers to disorders of articulation; it may be due to lesions in the brain stem (bulbar), cortex (pseudo bulbar), cerebellum or extrapyramidal system. Dysarthria can also be drug induced in schizophrenia.

Stammering*:* In stammering the normal flow of speech is interrupted by pauses or by the repetition of fragments of words or parts of words. Tics often accompany stammers. Boys stammer more often than girls; usually reduced in adulthood.

Stuttering is difficulty in uttering speech sounds at the beginning of words. Utterances are repetitive, prolonged and pauses are common. Primary stuttering is seen in children, in adults new onset stutter may be related to stroke or extrapyramidal symptoms.

Disturbed speech production:

1. Altered speed of speech:

Quiet speech in low volume with poor intonation, reduced spontaneity and prolonged reaction time is seen in depression. The terms used here are **bradyphasia** (decelerated talking) while **tachyphasia** refers to accelerated talking seen in manic states.

2. Altered amount of speech:

2.1. **Logorrhoea** refers to increased quantity of speech, generally without the pressure of speech or formal thought disturbances (see below) and seen especially in early manic states.

2.2. **Alogia** is a term used to denote poverty of speech and a decrease in spontaneous talking; it occurs in depression and schizophrenia. This must be differentiated from the **poverty of content of speech** where the amount of speech is adequate but conveys little information. This is often related to schizophrenic formal thought disorder (see below).

2.3. **Mutism**: This denotes a complete lack of speech. Severe depression with psychomotor retardation may be associated with mutism though this is relatively rare in the absence of catatonia. **Mutism** is almost always present in a catatonic stupor.

a. **Elective mutism:** Mostly seen in children who refuse to speak to certain people; for example, the child may not speak at school but speak at home.

b. **Hysterical mutism:** This is relatively rare, and the most common hysterical disorder of speech is aphonia.
c. **Akinetic mutism** is associated with lesions of the upper midbrain or posterior diencephalons and Crutzfeld Jakob Dementia. Here the patient is mute but remains aware of the environment though cannot move or respond.

3. Repetitive speech:

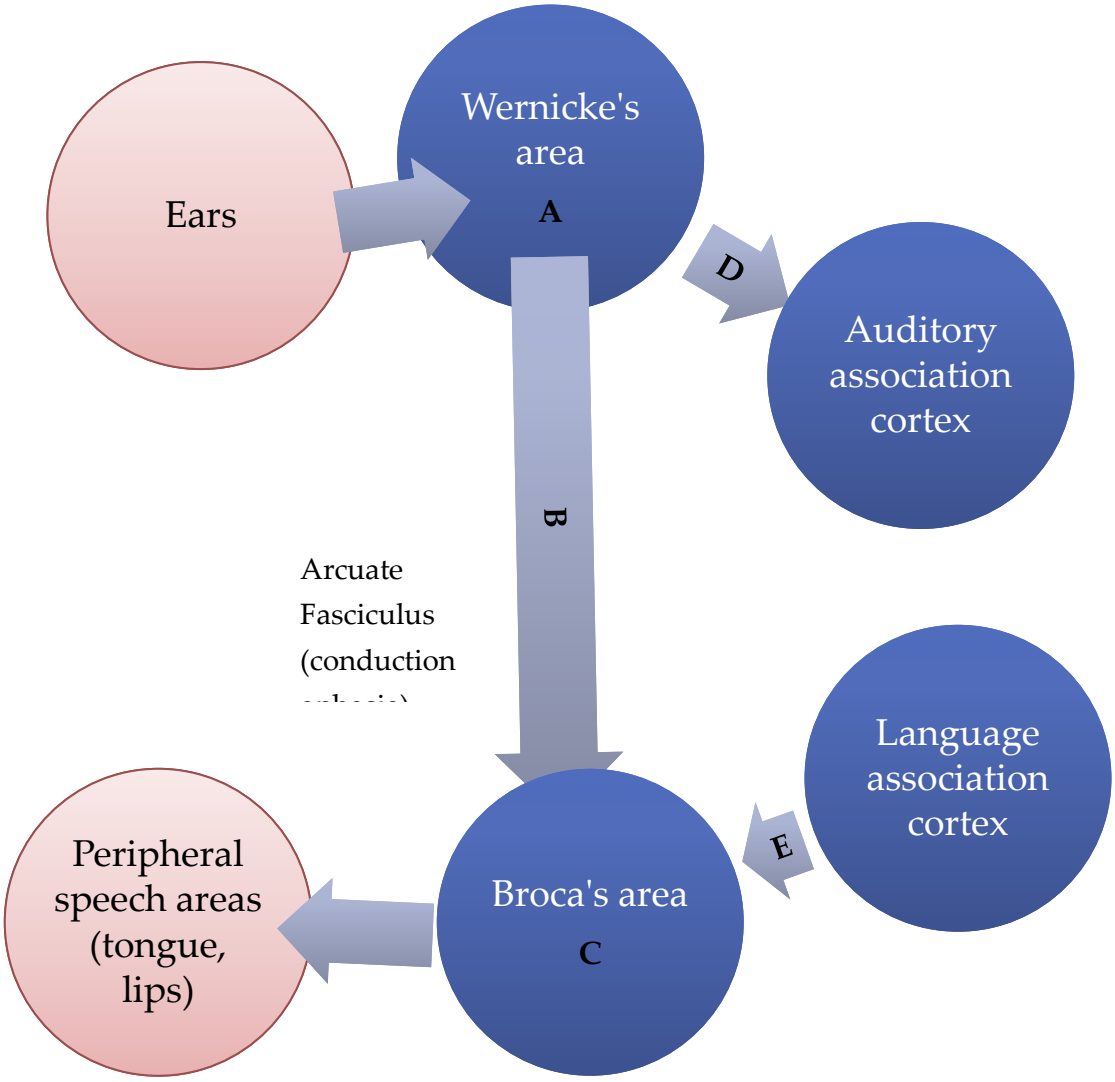
Verbigeration: Repetition of phrases or sentences. This occurs spontaneously and without any goal. This should not be confused with echolalia. This is not catatonia.

Palilalia: Repetition of last uttered word, without any apparent purpose; seen in learning disabled, pervasive developmental disorders and in Tourette's. Verbigeration is a closely associated phenomenon though neurologists prefer to use the term palilalia for both.

Logoclonia: Repetition of last syllable of a word, seen in Parkinson's.

Disturbed Language processing:

Sound received by ears is transmitted to Wernicke's area and auditory association cortex, which processes the language component. Arcuate fasciculus connects Wernicke's area to Broca's area. Broca's area is the higher motor area of language production. Signals from Broca's area are relied on onto the motor area to coordinate the delivery of language via the tongue, lips and vocal cords.



A. Sensory aphasia (Wernicke's)
B. Arcuate faciculus lesion - conduction aphasia
C. Broca's aphasia
D. Transcortical sensory aphasia
E. Transcortical motor aphasia

Fluency: E→C is required

Comprehension: A→D is required

Repetition: A→B→C is required

Components of Language production:

1. **Fluency**: Production of meaningful words and sentences. Depends on intact Broca's area and its forward connections.

2. **Comprehension**: Understanding words and sentences spoken by others. Depends on intact Wernicke's area and its connection with association cortex and sensory input

3. **Repetition**: Repeating what others say. Requires no high-level processing; can take place if Broca's, Wernicke's and arcuate fasciculus are intact. It does not need relay of higher association area to either Broca's or Wernicke's.

4. **Naming**: Ability to use nouns especially the names of objects. Naming defects (anomia) accompanies any aphasia but in various degrees.

Aphasia:

This refers to a higher level 'language' problem – not sound production or manipulation error but the problem of language reception, production and processing. Aphasia is almost always organic.

Type of aphasia	Fluency	Repetition	Comprehension	Naming
Wernicke's sensory aphasia	Intact	Lost	Lost	Lost
Broca's motor aphasia	Lost	Lost	Intact	Lost
Conduction aphasia	Intact	Lost	Intact	Lost
Transcortical sensory aphasia	Intact	Intact	Lost	Lost
Transcortical motor aphasia	Lost	Intact	Intact	Lost

Adapted from Harrison's Textbook of internal medicine; 15 e

In **Broca's aphasia** the speech is nonfluent; it often appears laboured with any interruptions and pauses. Function words (prepositions, conjunctions) are most affected though the good degree of meaning-appropriate nouns and verbs are still produced. Abnormal word order and a characteristic agrammatism are noted. Speech is telegraphic. Harrison textbook quotes the following example: "I see...the dotor, dotor sent me...Bosson. Go to hospital. Dotor...kept me beside. Two, tee days, doctor send me home".

In **Wernicke's aphasia,** the comprehension is impaired for both spoken and written language. Language output is fluent but is highly paraphasic, sometimes with string of neologisms and circumlocutions. Hence, it is also termed as "**jargon aphasia**." The speech contains large numbers of function words (e.g., prepositions, conjunctions) but few substantive nouns or verbs that refer to specific actions. The output is, therefore, voluminous but uninformative.

Disorders of reading and writing:

As aphasia is a disturbance of language production, reading and writing difficulties too accompany all aphasias. In addition, some disorders of isolated reading/writing problems have been described.

- **Pure word blindness (alexia):** Here the patient can speak normally and comprehend what is spoken; he can also write spontaneously and to dictation, but reading comprehension is impaired.
- **Pure agraphia:** This is an isolated inability to write while other faculties of language are preserved. It is sometimes seen as a component of Gerstmann's syndrome (parietal deficits)
- **Alexia with agraphia** results in acquired illiteracy.
- **Pure word deafness:** Patient can speak, read & write fluently, but comprehension is impaired only for spoken language. Bilateral (or left sided with disrupted connections to non-dominant circuit) damage to the superior temporal pole is suspected.
- **Pure word dumbness:** Spoken language cannot be produced clearly, but the patient can comprehend language well, can read and write

6. Disorders of Thought:

Normal thinking:

Normal thinking is of three *types* (or *functions*):

1. **Fantasy/dereistic thinking or autistic thinking**: There is no goal direction, unrealistic - daydreaming type. Predominant in cluster A personality, dissociation and pseudologia fantastica.

2. **Imaginative thinking**: Again fantasy elements but admixed with memory, involving abstract concepts but goal-directed and does not cross boundaries of possibility and realism. Determining the tendency of thoughts preserved e.g. lateral thinking.

3. **Rational or conceptual thinking**: based on factual reality and uses logic.

Psychopathology of thought includes 1. Disorders of thought content (e.g. delusions) 2. Disorders of thought form (e.g. tangentiality) 3. Disorders of thought stream (e.g. pressure of speech) 4. Disorders of thought control (e.g. obsessions)

Elements of thought:

Normally every thought we have has the following four properties: 1. Form 2. Stream 3. Content 4. Control. As a student of psychopathology, one wonders why should the authors make a fuss about the stream, form and content of thought; what is the real difference among this three concepts? A simple way of understanding this is through an analogy of buying fruits in the supermarket.

Element	Supermarket Analogy	Refers to	Disturbances
Content	Apples, pears or oranges? 'the material.'	**What** is being thought about?	Delusions of persecution, suicidal thoughts, etc.
Form	Bags, boxes, sold loose as single fruit? 'the package.'	In what **manner** is the thought present?	Loosened associations, tangentiality
Stream or flow	Packed as a dozen, a score, just four only, half a dozen, etc. 'the amount.'	**How** is it being thought about? **Fast**, **slow,** etc.	The poverty of thought, the pressure of speech and crowding of thoughts.
Control of thought	Mango is a produce of South Africa; tomatoes are from Spain, etc. 'the origin.'	**Where** is it from?	To some extent obsessions can be considered here, passivity and first rank thought disturbances.

Thought content could be deciphered from ones' behaviour, but thought form and stream, unless extremely deranged, cannot be studied without being expressed as speech. Formal thought disorder (FTD) refers to disturbances in form and not content; it is wrong to say 'someone is deluded so he has a formal

thought disorder'. But note that the term FTD increasingly includes both form and stream errors (not content errors) and scales that measure thought disorder do not differentiate stream from form anymore.

Formal thought disorders (FTD):

Note that various authors have used various terms to describe the FTD. Hence there is a significant overlap among the various terms – the following terms are not mutually exclusive of each other.

Various terms denoting FTD:

The term **paralogia** refers to positive FTD – i.e. symptoms of thought disorder that are identified as the presence/appearance of an abnormal element in thought processes (e.g. tangentiality). The term **alogia** is sometimes used to refer to negative FTD – symptoms considered due to the absence/disappearance of a normal element of thought/speech (e.g. poverty of speech content).

Kraepelin used the term **akataphasia** for FTDs to convey the essence that speech disorders are a result of thought disorder.

Blueler's term **'loosening of associations'** is often considered to indicate the presence of FTD.

Classifications of FTD:

Cameron proposed 4 characteristic formal thought disorders –

> **Metonymy**: imprecise approximate expressions used as substitute words. For example paperskate for a pen.
>
> **Asyndesis**: This refers to the lack of genuine causal links in speech. For example, 'I got up at eight this morning as well as few birds of different colours on the painting, shrinking all the time to drop few coins. On the floor. All the time.'
>
> **Overinclusion**: In **overinclusive thinking** ideas that are only remotely related to the concept under consideration become incorporated in the patient's thinking; Conceptual boundaries are lost. This is used to explain the thought disorders in schizophrenia and is different from the mechanism in the flight of ideas. Sorting tests can be used to test overinclusion. It occurs in nearly 50% of schizophrenia patients, especially when acutely ill.
>
> **Interpenetration**: Irrelevant thoughts penetrate ongoing stream of thoughts.

***C*arl** (*not* Kurt) **Schneider** proposed a different set of 5 elements of FTD

> **Substitution**: one thought – often inappropriate, fills the gap between other appropriate, more consistent thoughts.
>
> **Omission**: A chunk of thought goes missing from stream of conversation, patient being unaware – best analysed when written,
>
> **Fusion**: various thoughts fuse together, leading to loss of goal direction.
>
> **Drivelling:** disordered intermixture of constituent parts of one complex thought

Derailment (aka entgleisen); In derailment normally flowing track of thoughts suddenly change. The determining tendency is preserved but is misdirected.

Schneider also described **desultory thinking**, sometimes considered along with driveling. In desultory thinking, speech is grammatically correct but sudden ideas force their way in from time to time. Each one of these ideas is a simple thought that, if used at the right time would be quite appropriate.

Kleist proposed that semantic disturbance of language was more common than grammatical or syntactical errors in schizophrenia.

The impact of semantic problems in speech could result in

1. **Verbal paraphasia** – where meaningful sentences produced in spite of the loss of appropriate words e.g. 'food filling muscular carton' for the stomach (a metonym).

2. In **literal paraphasia,** no one can make out the meaning of sentence spoken except the patient.

Grammatical or syntactical disturbances include

1. **Agrammatism** refers to the loss of parts of speech – e.g. propositions leading to disordered word sequences.
2. In **paragrammatism**, individual phrases are well constructed and meaningful but they do not fit in with the goal of thought. The content delivered appears mixed up, though individually understandable.

<u>Various features of FTD:</u>

Neologism refers to making up a totally new word that is not in dictionary or using a known word with a completely different meaning e.g. 'Inkur' for pen (new) or 'roast' for pen (different).

Stock words are either newly synthesized or already known words but used in an idiosyncratic way repeatedly, often with many meanings and in different contexts, sometimes dominating any discourse. e.g. "The riposte (? dog) runs into my way, always active – when my riposte (?friend) is around, it's OK, full of riposte (?energy), as everyone likes him, when you throw him some riposte (?food) he stops all that work… comes running."

Thought block is a negative FTD – involves sudden arrest in the flow of thoughts; sometimes resembles an absence seizure though there is no amnesia for the idea that was discussed and no motor accompaniments typical of absences. Patients can elaborate on thought blocking with a delusional content of thought withdrawal.

Stilted speech: This refers to pompous, formal speech often in an inappropriate context. Impaired lexical retrieval may underlie stilted speech in schizophrenia. A patient said ' Pliant rectitude is a trait more appropriate for successful living than hot-headedness, which is either stubborn or crusady. (McKenna, 1994). This patient would not have said' pliant rectitude' or 'crusady' unless more common words for the same concepts were not accessible.

Flight of ideas is characteristic of mania. Here thoughts follow each other so rapidly, that there is no general direction for thinking. Hence, chance associations take place to connect succeeding thoughts. These chance associations may arise from distractions in the environment or distractions in the elements of one's own or someone else's speech. An external environment driven association could be the following one - when talking about his breakfast, hears rustling newspaper and jumps to the topic of Iraq war or cost of petrol or elections, etc. Being cued by verbal associations (i.e. sound of words spoken) can be of three types:

1. **Clang associations** where thoughts are associated by the initial syllabic structure of words rather than their meaning. e.g., clover, cloud, clap, clan, etc. Others include

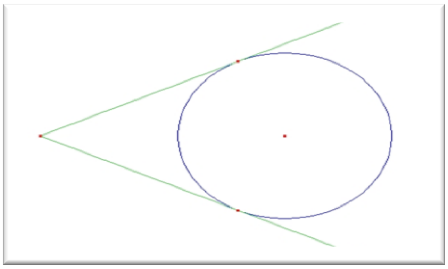
2. **Punning**: Here words get associated as one word has dual meaning e.g. fast – 'to starve' or 'speed up' and

3. **Rhyming**: Here words get associated as they have similar sounds e.g. cat, rat, bat, etc. In schizophrenic FTD, clang occurs in more often with first syllables as opposed to clangs in poetry, humour and manic speech where they occur more at the end syllables.

Vorbeireden is talking past the point leading to approximate but not accurate answers to questions asked in an interview. It is described as a type of formal thought disorder, different from the flight of ideas. Though often described along with the Ganser syndrome, it is not exclusive to Ganser's syndrome. It is also seen in acute schizophrenia and hebephrenic schizophrenia. Vorbeireden ('talking past the point') is often used interchangeably with **vorbeigehen** ('going past the point'), although the latter was originally defined as part of the 'Ganser syndrome', whereby some criminals would give incorrect answers ('approximate answers') to simple questions that none the less suggested that the correct answer was known (e.g. saying dogs have five legs).

Circumstantiality: In **circumstantiality**, thinking proceeds slowly, with many unnecessary details and digressions, before returning to the point. It is seen in some patients with temporal lobe epilepsy or alcohol-induced persisting dementia, learning difficulty and in obsessional personalities. It is a formal thought disorder where figure-ground differentiation apparently fails but not due to affective changes such as mania.

Tangentiality: Circumstantiality must be differentiated from tangentiality - the patient never reaches the point in tangentiality, whereas they do reach the point in circumstantiality. Imagine a spiral that eventually touches its centre, while tangent scrapes through the edge and never reaches the centre. Circumstantiality may be related to loosened associations and usually develops within the setting of a delusional mood in schizophrenia; it may be due to an impairment of a central filtering process that normally inhibits external sensations and internal thoughts that are irrelevant to a given focus of attention.



Concrete thinking: It is seen as literalness of expression and understanding, with failed abstraction. It is recognisable clinically but difficult to measure using psychometry. Goldstein studied this loss of abstract

thinking which can be tested using proverbs and similarities test. It seems concrete thinking is evident in speech-disordered (FTD) schizophrenia patients, but not the non-FTD group (Allen 1984). It is also seen in fronto temporal dementia.

Testing the linguistics of schizophrenia:

1. **Word association tests** are abnormal in schizophrenia – despite the context of usage, patients preferred dominant meaning of a word e.g. court means 'law-room' not tennis court, in spite of the context of discussion being sports.
2. In **cloze procedure** parts of recorded speech are deleted to see if meaning could be still predicted; predictability was reduced in schizophrenia. In **reverse cloze** procedure patients are asked to predict the missing elements of someone else's speech– again schizophrenia group performed worse in prediction.
3. **Type –token ratio** refers to the ratio between number of different words used during a discourse and total number of spoken words. Impoverished vocabulary was noted with low type-token ratio among schizophrenia patients.
4. **Cohesion analysis** (analysing links between sentences and words in a discourse) shows that schizophrenia patients use less referential ties (using pronouns without mentioning a subject in first place) and more lexical ties (connected words). Also, patients make more errors than controls when asked to construct complex sentences from simple phrases **(Hunt test).**

Measuring FTD:

Thought Language & Communication scale (TLC: Andreasen) and Thought and Language Index (TLI: Liddle) are commonly used scales. The latter uses projective stimuli from Thematic Apperception Test to elicit thought disturbances.

Of various thought disorders classified by Andreasen, clanging and flight are more common in mania while derailment (loosening) and thought blocking and to some extent tangentiality, poverty of content of speech are seen often in schizophrenia - other items were largely non-specific. FTD is suggestive but not pathognomonic of schizophrenia; it is also seen in organic syndromes such as epilepsy.

What causes Schizophrenic Speech Disturbance? There are various explanations from different scientific disciplines.

1. Von Domarus proposed that FTD is a result of loss of deductive reasoning – illogical thinking. (**Von Domarus law** – Kiwi cannot fly (premise 1), Kiwi is a bird (premise 2) - so birds cannot fly (conclusion); note that the inferences are based on insufficient premises.)
2. Schizophrenic thought disorder could be measured using Kelly's personal construct theory - based **repertory grids (Bannister)**. The patient is asked to score different elements (can be relatives or friends) under different constructs (qualities of them). Normally one would expect congruence between different constructs scored for an element, e.g. Mum is helpful, and she is also kind and supportive. But in schizophrenia the predictability of an element's quality using prior constructs is affected. (Mum is helpful but scores low on kindness and support offered). This is called **serial invalidation** and is more pronounced for peoples than objects, showing that thought disorder affects interpersonal realm more than other spheres. The scores can be used to draw a semantic

space, demonstrating graphical connections between people and qualities in the patient's personal world.

3. Mortimer considered FTD to be a result of impaired **semantic memory** – so associations between words and qualities are lost.
4. Words carry a semantic halo – e.g. the word 'London' is linked, through symbolic meaning to words like 'tube' and also 'Britain', 'England', etc. Imagine that these words are cross-wired in the brain. So whenever the word London is stimulated, the closely cross-wired words also become available readily for the thought process to proceed uninterrupted. This activation is called **direct semantic priming**. In Indirect semantic priming, London activates tube; tube activates light (as in tube light) or pipes, etc. This indirect priming is usually minimal, preventing inappropriate deviation in determining the tendency of thought flow. In schizophrenia, it is proposed that direct priming is impaired but indirect one is activated more, to explain FTD.
5. **Theory of mind** refers to the ability to understand that other individuals have mental processes similar to self, leading to appropriate behaviour and conversation e.g. taking turns while conversing (as others also think and so want to speak). This is deficient in the development of autistic children and can become acutely deficient (but develops normally) in schizophrenia during psychotic episodes. This can explain some pragmatic errors in FTD.
6. **Dysexecutive problems** are increasingly proposed as the basis of FTD. Frontal lobe plays significantly in formation of the human language ad so the loss of executive functions can result in poor planning, error monitoring and correction of speech production.

Stream of Thought:

The term **pressure of speech** refers to the phenomenon of having excessive thoughts in mind accompanied by rapid voluminous speech, often disjointed and non-pragmatic. This is seen in mania.

Crowding of thought occurs in schizophrenia. Here the patient describes his thoughts as being passively concentrated and compressed in his head. The associations are experienced as being excessive in amount, too fast, inexplicable and outside the person's control. Experientially, this is different from the manic flight of ideas.

Retardation of thinking: Seen in depression. Train of thought is slowed down, though goal-directed, it is characterised by little initiative or planning, the long latency of response, increased pause times when speech is initiated and during speech. In both the above the mood state of the patient dictates the flow of thoughts.

Perseveration: This could be considered under a stream of thought though traditionally, it is considered pathognomonic of organic brain disease; it is also discussed with disorders of motor action. The thought process tends to persist beyond a point at which they are relevant. It presents itself as repeatedly same answer or motor act even if the stimulus that elicits the response has changed and demands a different answer or motor act. Perseveration also occurs if there is clouded consciousness.

Possession /Control of thought:

Obsessions are unwanted, intrusive, repetitive, senseless thoughts experienced by patients as troublesome and resisted; though the appearance of the thoughts themselves is appreciated to be beyond their control, they are not claimed to be due to external agency. Patients often regard them to be the products of one's own mind but against their values and needs; therefore they are termed as ego-alien. Intrusive thoughts occur before motor (compulsive) acts. But it is not necessary that every compulsion is preceded by an obsession or vice versa. Often during the course of OCD primary obsessions fade while compulsions dominate clinical picture; some compulsions can be mental compulsions like praying, counting, etc. Obsessional **slowness** can occur either when obsessional thoughts occur as part of a depressive illness or in cases of severe OCD where primary obsessional slowness ensues. Still another pattern is the obsession with symmetry or precision, which leads to a compulsion of slowness. Patients take hours to eat a meal or shave, in an attempt to do things 'just right'. Unlike other patients with OCD, these patients do not resist their symptoms!

The most common obsession is the fear of contamination, followed by pathological doubt, a need for symmetry, and aggressive obsessions. The most common compulsion is checking, which is followed by washing, symmetry, the need to ask or confess, and counting. Children with OCD present most commonly with washing compulsions, which are followed by repeating rituals.

Thought alienation is a general term used to describe the experience that one's thoughts are under the control of outside influences or that others participate in one's thinking. This term is often confusing and better replaced with components of *first rank symptoms* – thought insertion, withdrawal and broadcast.

7. Motor symptoms

Fish classified motor symptoms into

a. **Abnormal spontaneous movements**: Tremors, Tics, chorea, athetosis and stereotypy noted in autistic spectrum disorders, hemi-ballismus, etc.

b.

Prominent catatonic symptoms	Non-catatonic motor symptoms seen in psychiatry
Ambitendence	Akathisia
Automatic Obedience	Perseveration
Catalepsy	Blepharospasm
Echo-phenomenon	Dystonia
Gegenhalten	Tardive dyskinesia
Grimacing	Tics
Mannerism	Astasia-abasia
Mutism	Chorea*
Negativism	Tremors*
Posturing	Athetosis*
Stereotypy	Hemiballismus*
Stuporous immobility/excitement	* Mostly neurological cause

Abnormal induced movement: Perseveration, automatic obedience, echo phenomenon and other catatonic signs

Catatonic symptoms:

Fink & Taylor have argued to include catatonia as a separate taxonomy in psychiatric nosology. Catatonia is decreasing in frequency in its classical form, largely due to early diagnosis, treatment and deinstitutionalisation. Catatonia is defined as rigidity during involuntary movements while volitional movement is carried out normally. Note that in neurological spasticity the tone is increased irrespective of passive or active movements. A patient with catatonia can use the affected limb or muscle group when needed with completely normal tone – for example, running out when there is a fire. Catatonia persists in sleep and can continue for weeks without improvement. Catatonia is mostly seen in advanced primary mood or psychotic illnesses. Among inpatients with catatonic presentation, 25 to 50 percent are related to mood disorders and approximately 10 percent are associated with schizophrenia. Catatonia results in both speech and motor disturbances.

Ambitendence: Here a schizophrenic patient brings the spoon to his mouth dozens of times but never completes the act. In ambitendency, the patient makes a series of tentative, opposing alternate movements that do not reach the intended goal. This becomes evident when the patient is asked to carry out a motor act e.g. asking the patient to show his tongue will elicit repeated protrusion and retraction of tongue as if

the patient is undecided about showing his tongue. (Note ambivalence: Inability to make a decision – dilemma of the volitional faculty. It may also appear as **affective ambivalence**- e.g., To love and hate the same person at the same time or **intellectual ambivalence**-E.g. Assertion and denial of the same idea. This is **not** a catatonic symptom.)

Automatic obedience*:* Exaggerated cooperation with examiner's request or spontaneous continuation of movement requested. To demonstrate this, the examiner must ask the patient not to cooperate, but still the patient will carry out motor instructions. In days where ethics did not hamper research, Kraepelin demonstrated automatic obedience by pinching his patient's tongue with a pin every time he protruded it; but the patient continued to obey Kraeplin's commands in spite of this!

Mitmachen and mitgehen are closely related to automatic obedience:

- **Mitmachen** can be considered as a mildest form of automatic obedience where despite requests to resist manipulation, the patient yields himself to be placed in abnormal postures.
- **Mitgehen** *or* "Anglepoise lamp" sign: The patient yields to slightest of pressures, without much resistance, similar to an angle poise lamp that bends easily. This happens even if the patient is instructed to resist any manipulation. This may be a milder form of automatic obedience. It is also called 'magnet reaction' as the patient may even follow the examiner around the room with light touch as if pulled by a magnet.

Catalepsy or Waxy flexibility*:* Also called ***flexibilitas cerea***. Here the patient shows wax-like plastic 'mouldable' quality. His limbs can be moved by the examiner to occupy certain postures, which are then maintained, even if these are uncomfortable and bizarre.

Differentiating this from mitmachen / mitgehen (Automatic Obedience)

- ✶ Unlike flexibilitas cerea, there is an explicit request to resist manipulation in mitmachen
- ✶ The arm comes back to resting position when released by the examiner in mitmachen, but not in catalepsy
- ✶ Unlike mitgehen, the manipulation is not gentle with finger tip but full and complete in catalepsy

Echo-phenomenon: This is seen in catatonia, Latah (a culture-bound disorder) and also in Tourette's syndrome.

Echopraxia: mimicking examiner's movements

Echolalia: mimicking examiner's speech.

In **Gegenhalten** (aka **paratonia or opposition**) there is a resistance to passive movements with the *proportional* strength to the increase of muscle tone which seems to be voluntarily controlled by the patient. Patients with **negativism** resist or oppose all passive movements attempted by the examiner. This is an extreme form of opposition where apparently motiveless resistance to all interference is found. Negativism can be a frustrating symptom especially for carers involved in offering nursing assistance to the patient. The catatonic symptom of blocking or **obstruction** (or ***Sperrung***) refers to a phenomenon

similar to thought blocking but occurs while carrying out motor acts. A patient with obstruction suddenly stops a motor act for no reason, without any warning. This may be demonstrated by asking the patient to move a part of his body; the movement is generally well begun, but then stops halfway without any indication.

Grimacing refers to the maintenance of odd facial expressions. An odd variant of grimacing is called **schnauzkrampf**, where the patient cups his lips as if they are spastic (snout spasm).

Stupor presents as **immobility** (usually the extreme opposite of excitement where no activity is noticeable though the patient is able to perceive stimuli). This is akin to akinetic mutism of neurological states. Paradoxically in extreme mania too, stuporous immobility can occur. But it is more common in depression. Catatonic **excitement** is characterised by *e*xtreme apparently non-purposeful hyperactivity, which presents as constant motor unrest. Unlike akathisia, this is often dramatic with no subjective component.

Mannerisms*:* Odd, but purposeful movements (hopping, saluting passers-by or mundane movements).

Some common mannerisms	
Tiptoe walking	Finger to lip moves ('shushing')
Clicking sounds during speech	Odd robotic speech, without contractions (can not instead of can't)
Shrugging	Grimacing
Parakinesia (contracting entire facial muscles)	Tapping, adjusting, saluting

They are also known as idiosyncratic ***voluntary*** movements though the patient may claim unawareness. These often have a delusional meaning in schizophrenia. They are different from stereotypes as mannerisms appear as goal-directed movements.

Mutism is discussed in detail along with speech disorders.

Negativism is an extreme form of opposition – see above.

Posturing *refers to the* maintenance of odd and bizarre postures. These might be spontaneously undertaken or derived from an arrested motor activity e.g. posture with swung arms as if one is frozen when walking. This is maintained despite efforts to be moved. It is also called catalepsy. **Psychological Pillow**: This is an extreme form of posturing. The patient holds their head several inches above the bed while lying and can maintain this uncomfortable posture for long periods of time.

Stereotypes *are* non-goal directed motor activity (e.g., spinning one's hands, repeated touching, patting, rubbing self). These are seen in catatonia and also in pervasive developmental disorder and severe learning disabilities.

Non-Catatonic symptoms:

Agitation vs. akathisia: Psychotic agitation is very difficult to distinguish from akathisia secondary to antipsychotics. But such distinction is important, as the latter requires a decrease, not increase, in medications administered. Akathisia has a subjective component of restlessness together with objective evidence of unrest; at times one may have to resort to benzodiazepines when the distinction is unclear

though the dose required to treat one may be different from the dose required for the other. http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1289895/

Astasia-abasia: Inability to walk, sit or stand upright without any obvious neurological deficits in motor strength and innervations. It is described that some patients with this syndrome cannot balance themselves upright but can run with a bizarre posture. Occurs as a motor conversion disorder.

Blepharospasm is a type of focal cranial dystonia that must not be confused with catatonia. Blepharospasm may be seen in Tardive Dyskinesia. It usually begins gradually with excessive blinking. Initially, episodes are triggered by specific stressors, e.g., bright lights, fatigue, distress etc., and disappear with sleep. Concentrating on a specific task (such as watching TV) often decreases the frequency of the spasms. With time, the spasms may become progressively intense, functionally blinding the patient during each episode wherein the eyelids remain vehemently closed for longer periods.

Perseveration*:* This refers to repeatedly same response – either verbal or motor, when different stimuli are delivered (questions or instructions). Irrespective of changes in stimuli that demand variation in responses, the response here remains the same. It is different from Verbigeration (see below) where verbal repetition occurs spontaneously, not just in response to questions or commands. Also note that perseverative responses are goal directed – they intend to answer a question or carry out an instruction, but stereotypes on other hand are not goal directed. It differs from echo phenomenon; the latter is a copying of other person's responses, not repeating self-responses.

Tics: These are sudden involuntary (but temporarily suppressible) jerking movements often seen in facial and vocal musculatures though it can affect any skeletal muscle group in the body. They typically have a waxing and waning course, worsening with low mood and fatigue and not seen in sleep. Some tics may appear as coordinated complex acts such as grunting, uttering syllables that may amount to coprolalia (obscenities) or echophenomenon. Tics seen in Tourette's differ from other simple tics in that they are preceded by a palpable urge or prodromal sensation before the motor act. Tics have been conceived to share the pathophysiology of obsessions.

Verbigeration: Repetition of phrases or sentences. This occurs spontaneously and without any goal. This should not be confused with echolalia. This is not catatonia.

Stereotypy	Mannerism
Meaningless motor expression	Behaviour has a special purpose or meaning
Often repetitive	Not particularly repetitive
e.g. Repeated hand-wringing, or rocking movements	e.g. wearing black goggles all the time,
Patient cannot explain the behaviour	At times, patient can come up with some explanation that may / may not be delusional

8. Miscellaneous topics

Pathology of familiarity:

Déjà vu is the feeling of having seen or experienced an event, which is being experienced for the first time. The most consistent finding in the de´ja` vu literature is that the incidence with which it is experienced decreases with age. Brown (2003) estimates that 60% of people have experienced it. De´ja` vu occurs more frequently under stress and fatigue while it declines with age. Reports of de´ja` vu are greater in schizophrenics and temporal lobe (TL) epileptics. This suggests that neurophysiological stimulation or dysfunction of the TL may be involved in de´ja` vu. However, the nature and duration of de´ja` vu in these populations is different to that experienced by the general population, e.g. lasting for hours in schizophrenia and minutes in TL epilepsy, compared to the typical duration of seconds. **De´ja` vecu** refers to the perception that events happening now have been lived

through before. Déjà pensee refers to the pathological familiarity for a thought or idea. Déjà entendu is a pathological familiarity for someone's voice.

Jamais vu is an experience that has been experienced before is not associated with feelings of familiarity. Both can occur in normal people, and also can occur in Temporal Lobe Epilepsy*.

Note that some authors (Ellis, Young) include delusional misidentification syndromes with the pathology of familiarity.

Memory and dissociation:

Confabulation is a falsification of memory occurring in clear consciousness associated with organic states. Suggestibility is a prominent feature of confabulation. It is often described in Korsakov syndrome. There can either be confabulation of embarrassment or of fantastic nature.

In **pseudologia fantastica,** there is fluent plausible lying (falsification of memory), with the statements made extreme and of grandiose nature. Is usually associated with dissocial or histrionic personality disorders.

In a dissociative **fugue**, there is narrowing of consciousness, wandering away from surroundings and subsequent amnesia for the episode. There is marked memory loss and loss of identity, but the patient can carry out complicated patterns of behaviour and is able to look after himself. There is a gross discrepancy between memory loss and intact personality.

For some reason, there always seems to be an MCQ on Ganser's syndrome, considered as a hysterical dissociative disorder. Ganser's syndrome includes:

- Approximate answers
- Clouding of consciousness with disorientation
- Psychogenic, physical symptoms – analgesia & hyperaesthesia
- Pseudohallucinations – *not always present*.
- Patients with Ganser's syndrome are amnesic for their abnormal behaviour.

Couvade syndrome describes a sympathetic pregnancy that affects husbands (rarely other family members) during their wives pregnancies. Most frequent between 3-9 months of pregnancy - it is a

conversion symptom not delusional as the husband does not think he is pregnant! Pseudocyesis is a condition where a woman experiences clinical signs of pregnancy without being pregnant, and the patient is convinced of pregnancy.

Koro is a culture-bound anxiety state where the patient believes that his penis is shrinking into his abdomen, and he will die as a result. This is considered to be a desomatization (organ specific depersonalization) experience associated with folk beliefs (hence not a delusion as culturally relevant). It is seen in Malaysia and Singapore.

In multiple personality disorders, one-way amnesia is common. (A knows B's existence, B is not aware). **Possession states** can occur as a part of dissociation or in normal religious experiences, or under hypnosis. Possession states, where consciousness is preserved, can occur in schizophrenia. Consciousness is altered in dissociative states. **Lycanthropy** is a form of possession where the patient loses awareness and identity and believes he has been transformed into an animal, usually wolf.

Out of body experiences, autoscopy, depersonalisation and transcendental experiences are clustered often in **Near Death Experiences**. The neurophysiological basis of near death experience (NDE) is unknown. Clinical observations suggest that REM state intrusion contributes to NDE. REM intrusion during wakefulness is a frequent normal occurrence and NDE elements can be explained by REM intrusion.

A feeling of impending **ego dissolution** is noted in LSD intoxication.

Depersonalisation:

It is the third most common symptom in psychiatric clinics. It is defined as a change in self-awareness and the individual feels **as if** he is unreal. The 'as if' quality differentiates it from psychotic states. When a similar feeling occurs for objects and environment around an individual, it is termed as **derealization (**Mapother). It is always subjective, unpleasant with affective change invariably, and insight preserved. Emotional numbing, loss of feelings of agency and self-esteem, disturbed body image, altered perception of time, memory and sensory experiences of all modalities are reported. Temporal lobe epilepsy (lasts for minutes), hysterical dissociation, depression, any anxiety state (lasts for seconds) including anankastic personality, using tricyclic antidepressants, hallucinogens and cannabis can cause depersonalisation apart from fatigue or meditation/yoga in normal people. ECT can worsen depersonalisation by unknown mechanisms. In psychiatric population, the affect associated with the experience is extremely unpleasant as opposed to the normal population. The most common psychiatric diagnosis is depression followed by anxiety disorders. Dissociation is only infrequently associated. Depersonalisation is often difficult to distinguish from derealization, and they often occur together though the former being commoner. The patients often do not report the symptom as it is difficult to express. This may be related to the ***pathology of familiarity*** wherein familiarity of self being lost. Depersonalisation is associated with déjà vu / jamais vu where place familiarity is error prone. Depersonalisation is frequently situational and almost always episodic. In depersonalisation disorder (classified as a dissociative disorder in DSM 4) the experience lasts for hours. Roth described a PAD – **Phobic anxiety depersonalisation syndrome**. Typically a married female in thirties with agoraphobia and anxiety – worsens with ECT treatment. This is now relevant only historically.

Desomatisation refers to depersonalisation that is localised to a body part. **Deaffectualisation** is an extreme form of anhedonia wherein not only pleasure but also the capacity to feel any emotion is consistently lost. It is not specific to any organic syndrome. It is never reported in mania. Patients score high on neuroticism with introversion being predominant.

Insight:

Insight refers to a multidimensional concept which includes 4 A's:

- **Awareness** of one's own symptoms (absence - anautognosia)
- **Attribution** of symptoms to mental disorder appropriately (absence – dysautognosia)
- **Appraisal** or analysis of consequences of such symptoms
- **Acceptance** of treatment

Insight is not an all or none phenomenon; it fluctuates within an illness for the same patient. More patients with psychoses have poor insight than those with neuroses. Loss of insight is not always related to the presence of delusions; as in manic states even without delusions nearly 50% patients show no insight during the acute episode. This may be different from schizophrenic insight loss that is seen even in the chronic stage. Insight has not been consistently associated with any psychopathology of schizophrenia; some studies show an association with disorganisation symptoms. In depression, insight may be higher than usual, called depressive realism. In acute psychosis presence of insight is associated with more self-harm and suicides. Loss of insight has been compared to anosognosia following stroke. Fronto parietal circuit may play an important role in insight.

Levels of insight:

1. Complete denial
2. Slight awareness of being sick but denying it at the same time
3. Awareness of being sick but blaming it on others, on external factors
4. Awareness that illness is caused by something unknown in the patient
5. **Intellectual insight:** admission that the patient is ill and that symptoms or failures in social adjustment are caused by the patient's own particular irrational feelings or disturbances without applying this knowledge to future experiences
6. **True emotional insight:** emotional awareness of the motives and feelings of the patient and the important persons in his or her life, which can lead to basic changes in behaviour.

Phenomenology of epilepsy:

Temporal lobe epilepsy TLE:

- **Autonomic sensations** are the most common of auras, causing epigastric aura, salivation, sometimes vertigo, etc.
- **Forced thinking** The individual has a compulsion to think on a certain restricted topic.
- **The evocation of thought:** Intrusion of stereotyped words or thoughts.

- **Sudden obstruction** to thought flow similar to schizophrenic thought block is also reported.
- **Panoramic memory**: Here the individual recalls expansive memories in incredible detail as if running a video show of the past.
- **Psychic seizures**: Isolated auras with hallucinations, depersonalization, micropsia or macropsia, déjà vu or jamais vu (especially if right sided origin) can occur.
- **Uncinate crises**: Hallucinations of taste and smell of uncinate origin associated with dream-like reminiscence and altered consciousness.
- Strong **affective experiences** are reported – fear and anxiety being very common. **Dostoevsky's epilepsy** refers to ecstatic content in the epileptic aura. TLEs are the most common seizures with auras. The term complex partial seizure refers to TLE generally.

Parietal lobe epilepsy:

Somatosensory seizures: The most common type of seizure in parietal epilepsies - patients describe physical sensations of numbness and tingling, heat, pressure, electricity and/or pain. Some patients describe a typical "Jacksonian march", in which the sensation "marches" in a predictable pattern from the face to the hand up the arm and down the leg.

Pain is a rare symptom of seizures as such but is quite common in parietal seizures, occurring in up to 25% of patients.

Somatic Illusions: During a somatic illusion patients may feel that their posture is distorted, that their arms or legs are in a weird position or are in motion when they are not (**kinaesthetic hallucination**), or that a part of their body is missing or feels like it does not belong (body image distortion). Vertigo is also reported.

Visual illusions: Patients may experience objects as being too close, too far, too large, too small, slanted, moving or otherwise not right.

Frontal lobe seizures: Complex partial seizures of frontal lobe origin are usually quite different from temporal lobe seizures. Frontal lobe seizures tend to be **short** (less than 1 minute), occur in **clusters** and during **sleep**, include **strange automatisms** such as bicycling movements, screaming, or even **sexual** activity. Sometimes a person may remain fully aware at the same time having wild movements of the arms and legs. A seizure from the frontal lobe may even involve laughing or crying as the only symptom, the former is called **gelastic** and the latter **dacrystic** seizures. These are also noted in temporal lobe seizures.

Automatisms: Epileptic automatism is a state of clouding of consciousness which occurs during or immediately after a seizure. The impairment of awareness varies. The individual retains control of posture and muscle tone but performs simple or complex movements without being aware of what is happening. To the onlooker, the patient appears confused, and there is subsequent amnesia for the episode. Simple stereotyped behaviours (gesturing, grasping, lip-smacking and chewing movements) are often exhibited lasting few seconds to minutes. Very occasionally, automatisms are prolonged (fugue

states), or complex actions are carried out. If violent, these are never premeditated, seldom goal-directed, rarely involve the use of complex tools/weapons and are especially likely if restraining was attempted.

DISCLAIMER: This material is developed from various revision notes assembled while preparing for MRCPsych exams. The content is periodically updated with excerpts from various published sources including peer-reviewed journals, websites, patient information leaflets and books. These sources are cited and acknowledged wherever possible; due to the structure of this material, acknowledgements have not been possible for every passage/fact that is common knowledge in psychiatry. We do not check the accuracy of drug-related information using external sources; no part of these notes should be used as prescribing information.

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